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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/614,134

07/08/2003

Kenichi Sakamoto

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08/22/2006

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EXAMINER

LEVITAN, DMITRY

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,134

Applicant(s)

SAKAMOTO ET AL.

Examiner

Dmitry Levitan

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-19 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-19 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Amendment, filed 06/11/05, has been entered. Claims 2-19, 21-23 remain pending.

Terminal Disclaimer

1. The terminal disclaimer filed on 6/14/06 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US patent 6,633,571 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 103

1. Claims 2-19, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCloghrie (US 6,035,105) in view of Chen (US 6,392,997).

2. Regarding claims 2, 5, 6, 9 and 10, McCloghrie substantially teaches the limitations of claims:

A packet communication apparatus, method and system to transmit a packet from a first network to a second network (LAN switch 103 and two networks 102 on Fig. 1 and 2:33-49, each network comprises appropriate VLAN), wherein the packet includes destination address (inherently part of any packet, because a destination address is essential for packet routing) and a Virtual Private Network/VPN identifier (each VLAN identifies each frame/packet with a VLAN identifier 1:50-65, shown on Fig. 1 and 2 as tag 107) used to compose first VPN in the first network comprising:

A packet generating unit/router which generates a second VPN identifier used to compose a second VPN in the second network based on the destination address and information in the first VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14 generating a second header by

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changing tag 107 as shown on Fig. 2 and 3:49-67, changing the first VLAN identifier to a second VLAN identifier 1:59-63); and

A transmitter which transmits a packet having thereto said second VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14 changing VLAN identifier 1:59-63).

McCloghrie teaches the networks as LANs utilizing the packets with MAC address (4:33-44).

McCloghrie does not teach networks implementing IP and the IP packets including IP address.

Chen teaches interconnected IP networks (AS2 and AS3 IP networks on Fig. 1 and 4:14-30) utilizing the IP packets with IP address (4:25-30 and 5:2-13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using IP networks and packets with IP address of Chen to the system of McCloghrie to implement the method in widely used IP networks.

In addition, regarding claim 6, McCloghrie teaches receiving the packet (3:7-14).

3. Regarding claims 3, 7 and 11, McCloghrie teaches replacing the first identifier with the second identifier (VLAN identifier replacement process 1:59-63).

4. Regarding claims 4, 8 and 12, McCloghrie teaches a route decision processing unit (LAN switch 103) which routes the packet to the second network according to the destination address (MAC address 4:33-44) and information in the first header (VLAN identifier/tag 107 4:62-64) using IP address of Chen instead of MAC address, as shown above.

5. Regarding claims 13, 16, 17, 20 and 21, McCloghrie substantially teaches the limitations of claims:

A packet communication apparatus, method and system to transmit a packet from a first network to a second network (LAN switch 103 and two networks 102 on Fig. 1 2:33-49, each network

comprises appropriate VLAN), wherein the packet includes destination address (inherently part of any packet, because a destination address is essential for packet routing) and a first VPN identifier (each VLAN identifies each frame/packet with a VLAN identifier 1:50-65, shown on Fig. 1 and 2 as tag 107) used to compose first VPN in the first network comprising:

An index and packet generating unit/router which generates a second VPN identifier used to compose a second VPN network in the second network based on the index, as the index is based on the destination address and the first identifier (LAN switch 103 on Fig. 1 and 3:7-14 generating a second VLAN identifier by changing index/tag 107 as shown on Fig. 2 and 3:49-67, based on the index/tag in table 206 as shown on Fig. 2 and 5:2-33, according to the VLAN identifier replacement process 1:59-63); and

A transmitter which transmits a packet having thereto said second VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14).

McCloghrie teaches networks as LANs utilizing the packets with MAC address (4:33-44).

McCloghrie does not teach networks implementing IP and the IP packets including IP address.

Chen teaches interconnected IP networks (AS2 and AS3 IP networks on Fig. 1 and 4:14-30) utilizing the IP packets with IP address (4:25-30 and 5:2-13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using IP networks and packets with IP address of Chen to the system of McCloghrie to implement the method in widely used IP networks.

6. Regarding claims 15, 19 and 23, McCloghrie teaches a route decision processing unit (LAN switch 103) which routes the packet to the second network according to destination

address (MAC address 4:33-44) and information in the first header (VLAN identifier/tag 107 4:62-64) using IP address of Chen instead of MAC address, as shown above.

7. Regarding claims 14, 18 and 22, McCloghrie teaches replacing the index with a second VPN identifier (removing an identifier/tag of the first network with appropriate encapsulation/header and identifier for the second network 1:50-67 and 2:1-6).

Response to Arguments

8. Applicant's arguments with respect to claims 2-19 and 21-23 have been considered but are not persuasive.

9. On pages 10-12 of the Response, Applicant argues that McCloghrie teaches the networks as only LANs and there is no reason to combine McCloghrie teachings with IP networks of Chen Examiner respectfully disagrees.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, IP networks are widely used in the art and implementing the method of McCloghrie in the IP environment of Chen would have been obvious to one of ordinary skill in the art at the time the invention was made.

Applicant's arguments directed to the particulars of Chen system are irrelevant, because examiner did not base the rejection on these details of Chen system.

On pages 12 and 13 of the Response, Applicant argues that McCloghrie does not teach generating a second VPN identifier to compose a second VPN in the second network based on the destination address and the first VPN identifier.

Examiner respectfully disagrees.

McCloghrie teaches routing the frame/packet from one type of VLAN to the other, inherently based on the destination address, because the destination address is essential for routing, and removing the first frame/packet encapsulation, comprising the first network identifier, and replacing it with a second frame/packet encapsulation, comprising the second network identifier, as disclosed on 1:50-65.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on (571) 272-7529. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to be 'DL' followed by a stylized name, likely Dmitry Levitan.

Dmitry Levitan
Examiner
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